

REMARKS

An Excess Claim Fee Letter for two (2) excess total claims is submitted herewith.

Claims 1, 2, 4-16, and 18-27 are all the claims presently pending in the application. Claims 1, 2, 8, 10, and 21 are amended to more particularly define the invention. Claims 26 and 27 are added to claim additional features of the invention. No new matter is added.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Aoki et al. (U.S. Patent Publication No. 2005/0110702 A1).

Claims 4-8, 11-14, and 18-20 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Aoki in view of Fujieda et al. (U.S. Patent Publication No. 2002/0070910 A1). Claim 9 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Aoki in view of Fujieda and Moore (U.S. Patent No. 5,472,255). Claim 10 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Fujieda in view of Maynard (U.S. Patent No. 6,072,154). Claims 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Aoki in view of Maynard.

Applicant appreciates the telephonic interview granted by Examiner Dmitriy Bolotin and his supervisor on September 10, 2009.

During the interview, Applicant described the claimed invention and pointed out that the inventions of claims 1, 2, 8-10, 21, and 22 included features that are not taught or suggested by the

cited references. The parties discussed claims 1, 2, 8-10, and 21-25 with respect to the applied prior art references.

Specifically, the Examiners admitted that Aoki failed to teach or suggest the structure of the present invention shown in Figures 7 and 8. The Examiners also admitted that the invention of claim 9 overcame the alleged combination of Aoki, Fujieda, and Moore. The Examiners further admitted that the heating means of Maynard was provided inside the substrates of Maynard, and Maynard failed to teach or suggest a heating means being applied outside of the substrates. Other than these particular admissions, no agreement was reached.

Applicant disagrees with the Examiner's rejection of the claims and respectfully asserts that all claims are allowable as currently presented.

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

An exemplary aspect of the claimed invention (e.g. as recited in claim 1 and similarly in claim 21) is directed to an information display apparatus including a fan face that is openly/closably bent like bellows, the fan face including a thin film flat display formed on a flexible and bendy thin film, the thin film flat display including a full color organic EL display capable of displaying a full color television image (or a full color image in claim 21), a pair of main ribs joined to respective ends of the fan face, the fan face being disposed between the main ribs, a plurality of intermediate ribs interposed between the main ribs, the fan face being joined to the intermediate ribs, and a pivot for turnably fixing the main ribs and the intermediate ribs in a root portion. A television receiver circuit (or a computer system for information processing in claim 21) is disposed in one of the main ribs.

Another exemplary aspect of the claimed invention (e.g. as recited in claim 2) is directed to an information display apparatus including a pair of main ribs, a plurality of intermediate ribs interposed by the main ribs, a pivot for turnably fixing the main ribs and the intermediate ribs in a root portion, and a fan face joined to the intermediate ribs and disposed between the pair of main ribs as well as openably/closably bent like bellows, the fan face including a thin film flat display formed on a flexible and bendy thin film, the thin film flat display having a back surface, a plurality of mountains having vertex portions that are joined to the back surface of the thin film flat display such that the mountains of the fan face are joined in at least a part of the fan face to make the thin film flat display have a flat surface in an unfolded state of the fan face, and a plurality of valleys connected to the mountains and to the back surface of the thin film flat display by strings that pull the back surface of the thin film flat display in a direction of the valleys when the fan face is being folded such that a result of the folding of the fan face is the thin film flat display being folded to the valleys of the fan face.

Another exemplary aspect of the claimed invention (e.g. as recited in claim 8) is directed to an information display apparatus including a thin film flat display formed on a flexible thin film, the thin film flat display being a full color organic EL display capable of displaying a full color image, hold means for holding the thin film flat display from a back surface such that it is joined to front surfaces of a plurality of rigid rectangular substrates when they are arranged in parallel on a flat surface, a case for accommodating the thin film flat display, and a take-up unit disposed in the case for taking up and accommodating the thin film flat display together with the hold means in the case using a direction parallel with long sides of the rigid rectangular substrates as an axis.

Another exemplary aspect of the claimed invention (e.g. as recited in claim 10) is directed to an information display apparatus including a thin film flat display formed on a thin film, the thin film

including at least one of flexible shape memory alloy, shape memory resin, shape memory alloy fiber, and shape memory resin fiber, a case for accommodating the thin film flat display, an accommodation unit disposed in the case for accommodating the thin film flat display by taking up or folding it, and a heater disposed in the case for heating the thin film flat display when it is accommodated or unfolded.

Conventional information display apparatuses either are lackluster with respect to portability and weight (i.e. laptop computer), or are small and difficult to be seen (i.e., mobile phone). To remedy these drawbacks, thin film flat displays have been developed. However, the conventional thin film flat display is not typically flexible, which affects portability and storage. (Application at paragraphs [0002] and [0005]).

On the other hand, the exemplary aspects of the claimed invention may include an information display apparatus, where a television receiver circuit or a computer system for information processing is disposed in one of the main ribs (Application at paragraph [0042]), including a plurality of valleys connected to the mountains and to the back surface of the thin film flat display by strings that pull the back surface of the thin film flat display in a direction of the valleys when the fan face is being folded such that a result of the folding of the fan face is the thin film flat display being folded to the valleys of the fan face (Application at paragraph [0053]), including hold means for holding the thin film flat display from a back surface such that it is joined to front surfaces of a plurality of rigid rectangular substrates when they are arranged in parallel on a flat surface (Application at Figures 9 and 10), or including a heater disposed in the case for heating the thin film flat display when it is accommodated or unfolded (Application at paragraph [0060]). These exemplary features may provide an information display apparatus with enhanced portability. (Application at paragraph [0006]).

II. THE PRIOR ART REJECTIONS

A. The Aoki Reference

Aoki discloses flexible display membranes provided in various geometries. (Aoki at Abstract). The Examiner alleges that Aoki anticipates the invention of claims 1 and 2. Applicant respectfully disagrees.

For example, Aoki clearly fails to teach or suggest an information display apparatus, “wherein a television receiver circuit [or a computer system for information processing] is disposed in one of the main ribs”, as recited, for example, in claims 1 and 21 . (Application at paragraph [0042]). Aoki also clearly fails to teach or suggest an information display apparatus, “comprising . . . a plurality of valleys connected to the mountains and to the back surface of the thin film flat display by strings that pull the back surface of the thin film flat display in a direction of the valleys when the fan face is being folded such that a result of the folding of the fan face is the thin film flat display being folded to the valleys of the fan face”, as recited, for example, in claim 2. (Application at paragraph [0053]). As previously mentioned, these exemplary features may provide an information display apparatus with enhanced portability. (Application at paragraph [0006]).

The Examiner alleges that Aoki teaches the main ribs of the inventions of claims 1 and 21 at “sections 510 located at both ends of (sic) folding fan configuration 500 of fig. 5”. (Office Action at page 2, final paragraph). Further, in the telephonic interview, the Examiner alleged that Figures 7-9 of Aoki teach an electronic device 704 that is used with the display configuration 700.

However, Aoki clearly fails to teach or suggest an information display apparatus, where a television receiver circuit or a computer system for information processing is disposed in one of the main ribs. In the aforementioned telephonic interview, the Examiner alleged that including the

television receiver circuit or the computer system in one of the main ribs would be a matter of design choice.

Applicant respectfully disagrees. Aoki absolutely fails to teach or suggest the aforementioned exemplary features. Further, one of ordinary skill in the art would clearly not be able to dispose the electronic devices taught in Aoki into one of the main ribs of the inventions of claims 1 and 21. Specifically, the electronic device taught in Figures 7-9 of Aoki is a large, rectangular object. While Aoki at paragraph [0056] teaches that “[t]he shape of the electronic device 704 need not always be rectangular as shown”, Aoki also teaches that “they are frequently produced in such a configuration.”

This admission by Aoki clearly suggests that one of ordinary skill in the art would not be able to dispose a television receiver circuit or a computer system for information processing in one of the main ribs merely by changing the design of the television receiver circuit or the computer system.

Further, Applicant respectfully submits that Aoki fails to teach or suggest that the sections 510 could accommodate an electronic device. The sections 510 are flat and possess no dimension in which to dispose an electronic device. This is yet another reason why the aforementioned allegation bears no merit and would require extra structure not taught or suggested by Aoki.

In addition, Applicant respectfully submits that there is no section of the MPEP and no case law which supports the Examiner’s allegation of the exemplary feature being “a matter of design choice”. Thus, the Examiner’s allegation of the exemplary feature being “a matter of design choice” is nothing more than a constructive taking of Official Notice. As such, Applicant respectfully traverses this constructive taking of Official Notice as being unsupported and outside the bounds of subject matter that is acceptable for the taking of Official Notice. Further, Applicant requests the Examiner to provide proof in support of the allegation of the exemplary feature being “a matter of design choice”.

The Examiner also alleges in the Office Action that Aoki teaches the exemplary feature of the invention of claim 2 at paragraphs [0048]-[0050], specifically alleging that the display membrane 400 of figure 5 of Aoki can extend or collapse to form a fan. (Office Action at pages 3-4, “As to claim 2 . . .”). However, Aoki clearly fails to teach or suggest an information display apparatus, including a plurality of valleys connected to the mountains and to the back surface of the thin film flat display by strings that pull the back surface of the thin film flat display in a direction of the valleys when the fan face is being folded such that a result of the folding of the fan face is the thin film flat display being folded to the valleys of the fan face. As previously stated with respect to the telephonic interview, the Examiner admitted that this exemplary feature is neither taught nor suggested by Aoki.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw these rejections.

B. The Alleged Aoki and Fujieda and Aoki, Fujieda, and Moore Combinations

Fujieda discloses a mobile communication terminal. (Fujieda at Abstract). Moore discloses a sun visor having a retractable sun screen. (Moore at Abstract). The Examiner alleges that the combinations of Aoki and Fujieda and Aoki, Fujieda, and Moore make the inventions of claims 1, 2, and 8 obvious.

However, even assuming (arguendo) that one of ordinary skill in the art would combine Aoki and Fujieda and Aoki, Fujieda, and Moore, the resultant combinations fail to teach or suggest all features of the inventions of claims 1, 2, and 8. Specifically, Aoki, Fujieda, and Moore – either applied alone or (arguendo) in combination – fail to teach or suggest an information display apparatus, “wherein a television receiver circuit is disposed in one of the main ribs”, as recited, for

example, in claim 1. (Application at paragraph [0042]). Aoki, Fujieda, and Moore also fail to teach or suggest an information display apparatus, “comprising . . . a plurality of valleys connected to the mountains and to the back surface of the thin film flat display by strings that pull the back surface of the thin film flat display in a direction of the valleys when the fan face is being folded such that a result of the folding of the fan face is the thin film flat display being folded to the valleys of the fan face”, as recited, for example, in claim 2. (Application at paragraph [0053]). Further, Aoki, Fujieda, and Moore fail to teach or suggest an information display apparatus, “comprising . . . hold means for holding the thin film flat display from a back surface such that it is joined to front surfaces of a plurality of rigid rectangular substrates when they are arranged in parallel on a flat surface”, as recited, for example, in claim 8. (Application at Figures 9 and 10).

With respect to the invention of claim 8, the Examiner admits that Aoki fails to teach or suggest the above-referenced exemplary feature of the invention of claim 8. Also, as previously stated in Section A, Aoki fails to teach or suggest the above-referenced exemplary features of the inventions of claims 1 and 2.

To make up for the deficiencies of Aoki, the Examiner applies Fujieda. With respect to the invention of claim 8, the Examiner alleges that Fujieda teaches the

take-up unit (slit 116 of fig. 1) disposed in the case (housing 100 of fig. 1) for taking up and accommodating the thin film flat display (display 120 of fig. 2) together with the holding means (supporting device 130 of fig. 2) in the case using a direction parallel with a long side of the substrate as an axis (as shown in fig. 2).

(Office Action at page 7, second paragraph).

However, Fujieda clearly fails to teach or suggest an information display apparatus including hold means for holding the thin film flat display from a back surface such that it is joined to front surfaces of a plurality of rigid rectangular substrates when they are arranged in parallel on a flat surface. Fujieda teaches supporting device 130 in Figure 2 and paragraph [0059]. The supporting

device, however, is a stick-like object capable of unfolding to an M shape. Indeed, the stick-like object clearly is not disposed in parallel, but in an M shape. On the contrary, the invention of claim 8, as shown in Figures 9-12, is formed of multiple, parallel plates which can become large and flat in the unfolded state. The folded plate structure of the invention of claim 8 is clearly not taught or suggested by Fujieda, which simply suggests the stick being capable of unfolding to the M shape.

In addition, the Examiner fails to assert Fujieda with respect to the exemplary features of the inventions of claims 1 and 2. Indeed, Fujieda clearly fails to teach or suggest an information display apparatus, where a television receiver circuit is disposed in one of the main ribs, or including a plurality of valleys connected to the mountains and to the back surface of the thin film flat display by strings that pull the back surface of the thin film flat display in a direction of the valleys when the fan face is being folded such that a result of the folding of the fan face is the thin film flat display being folded to the valleys of the fan face.

With respect to the invention of claim 9, to make up for the deficiencies of the alleged Aoki and Fujieda combination, the Examiner applies Moore. However, as previously mentioned with respect to the telephonic interview, the Examiner admitted that the invention of claim 9 is neither taught nor suggested by Moore. Thus, since claim 9 depends from claim 8, the alleged combination fails to teach or suggest the inventions of claims 1, 2, and 8, and the Examiner fails to make a *prima facie* case of obviousness using Aoki, Fujieda, or Moore.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw these rejections.

C. The Maynard Reference

To make up for the deficiencies of Aoki and Fujieda, the Examiner applies Maynard. Maynard discloses a shape memory device. (Maynard at Abstract). The Examiner alleges that the combination of Fujieda and Maynard makes the invention of claim 10 obvious, and the combination of Aoki and Maynard makes the invention of claim 15 obvious, thus making the invention of claim 1 obvious.

However, even assuming (arguendo) that one of ordinary skill in the art would combine Aoki and Maynard, and Fujieda and Maynard, the resultant combinations fail to teach or suggest all features of the inventions of claims 1 and 10, respectively. Specifically, Aoki, Fujieda, and Maynard – either applied alone or (arguendo) in combination – fail to teach or suggest an information display apparatus, “wherein a television receiver circuit is disposed in one of the main ribs”, as recited, for example, in claim 1. (Application at paragraph [0042]). Also, Aoki, Fujieda, and Maynard – either applied alone or (arguendo) in combination – fail to teach or suggest an information display apparatus, “comprising . . . a heater disposed in the case for heating the thin film flat display when it is accommodated or unfolded”, as recited, for example, in claim 10 (Application at paragraph [0060]).

On page 10 of the Office Action, the Examiner alleges that Maynard teaches “a thin film (sheet 12 of fig. 1) comprising flexible shape memory alloy (col. 6, lines 16 – 35)” However, the Examiner admitted in the telephonic interview that Maynard fails to teach or suggest an information display apparatus, including a heater disposed in the case for heating the thin film flat display when it is accommodated or unfolded. Further, the Examiner fails to allege that either Aoki or Fujieda teaches or suggests this exemplary feature.

In addition, the Examiner fails to assert that Maynard teaches or suggests the exemplary feature of the invention of claim 1. Indeed, Maynard clearly fails to teach or suggest an information display apparatus, where a television receiver circuit is disposed in one of the main ribs.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw these rejections.

III. NEW CLAIMS

New claims 26 and 27 are added to claim additional features of the invention and to provide more varied protection for the claimed invention. These claims are independently patentable because of the novel and nonobvious features recited therein.

Applicant submits that the new claims are patentable over the cited prior art references at least for analogous reasons to those set forth above.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1, 2, 4-16, and 18-27, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

Serial No.: 10/591,973
Docket No.: F06-443-US

(FUJIT.083)

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: September 17, 2009

A handwritten signature in dark ink, appearing to read "C.R. Monday", written over a horizontal line.

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